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CHEMICAL PROCESSORS, INC.
PIER 91 FACILITY

SOLID WASTE MANAGEMENT UNIT REPORT

July 5, 1988

Prepared For
U.S. Environmental Protection Agency
Region 10
Seattle, Washington

USEPA RCRA



3012548

CHEMICAL PROCESSORS, INC.
GEORGETOWN FACILITY
SOLID WASTE MANAGEMENT UNIT REPORT

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1.0 INTRODUCTION

This report has been prepared in response to a letter from the U.S. Environmental Protection Agency (EPA) dated April 20, 1988 requesting submittal of information regarding potential releases of hazardous waste or hazardous constituents from any existing or closed solid waste management units (SWMUs) occurring at Chemical Processors, Inc. facilities. This information was requested by EPA under the authority of Section 3007 of the Resource Conservation and Recovery Act (RCRA).

Enclosures A and B of the EPA request letter further defined the scope of this SWMU report. Information was specifically requested on existing or closed SWMUs not included in the Facility's current Part A or Part B, and on any product spills at the site.

The Chemical Processors, Inc. Pier 91 Facility is located on a four acre site at 2001 W. Garfield Street (Pier 91) in Seattle, Washington. The Facility's EPA/Ecology identification number is WAD000812917. The facility, owned by the Port of Seattle, has been leased and operated by Chemical Processors, Inc. since 1971.

2.0 SITE HISTORY

2.1 Site History Prior to Chemical Processors, Inc. Operations

The first fill projects in the area of the Chemical Processors, Inc. Pier 91 Facility began in the early 1900s, when the Great Northern Railroad began to develop the area. Subsequent fill projects between approximately 1915 and 1920 filled the shallow, marshy areas between Magnolia and Queen Anne hills. The source of the fill material is unknown, but may have included railroad ballast and cinders, or soil removed during the Denny Regrade project. The central portions of Piers 90 and 91 are also fill material with 75-foot-wide concrete "aprons" around the outer sides of the piers.

The tank system currently leased by Chemical Processors, Inc. was first constructed in approximately 1926, for use as a gasoline refinery by the California Petroleum Company. The tank system property was owned and/or operated by the California Petroleum Company and any subsequent oil companies; surrounding land and piers were owned and/or operated by the Port of Seattle. The duration of California Petroleum Company's operations is unknown. A January 1931 archive drawing indicates that the Port of Seattle Commission was the owner/operator of the tank system at that time. The Texaco Company is thought to have owned or operated the facility sometime prior to December 1941, but no documentation of the company's presence has been found.

In December 1941, the U.S. Navy took possession of the tank system and all surrounding Port of Seattle property, including Piers 90 and 91. The entire area is now referred to as Terminal 91 by the Port of Seattle. The area was used by the Navy as a major shipping and staging point during

World War II, the Korean War, and the Vietnam War. Buildings constructed in the area included warehouses, refrigeration facilities, barracks, and other support facilities. The tank system was used primarily as a fuel and lubricating oil transfer station.

The Navy maintained possession of Terminal 91 until the early 1970s. During the time of Navy ownership, the area was also used by the U.S. Coast Guard and the National Oceanic and Atmospheric Administration (NOAA).

In approximately 1972, the Navy declared the Terminal 91 property as surplus. The Port of Seattle began managing a marine cargo facility in the area at that time. The property was re-acquired by the Port of Seattle in 1976, and has remained under its management since that time. Beginning in 1977, many Navy buildings adjacent to and beyond the tank system area were demolished to make room for Port of Seattle operations, including refrigeration facilities, marine cargo warehouses, and offload and preparation areas for new automobiles.

2.2 Site History During Chemical Processors, Inc. Operations

Chemical Processors, Inc. leased the tank system property in June 1971. The facility's first shipment was received in September 1971, and consisted of waste oil to be recovered for use as industrial fuel. Since operations began in 1971, the Pier 91 Facility's main activities have been waste oil recovery and wastewater treatment. Typical waste streams processed at the Pier 91 Facility include oil and coolant emulsions, industrial wastewater, and industrial waste sludges.

Bilge and ballast waters are primarily received via ships. Other wastes and wastewaters are received via tankers or in drums.

A major portion of the Pier 91 Facility's tank system has been subleased to Pacific Northern Oil Corporation (PANOCO) since the early 1970s for use as a marine fuel depot. Reclaimed oil processed by Chemical Processors, Inc. is sold to PANOCO for use as cutting stock in marine boiler fuel oils.

The Chemical Processors, Inc. lease with the Port of Seattle includes piping between the tank system and berths on Pier 91, and berths used for ship loading/unloading (presently Berths K and L).

3.0 EXISTING AND CLOSED SOLID WASTE MANAGEMENT UNITS NOT ON THE PART A

3.1 Solid Waste Management Units Closed Prior to Chemical Processors, Inc. Operations

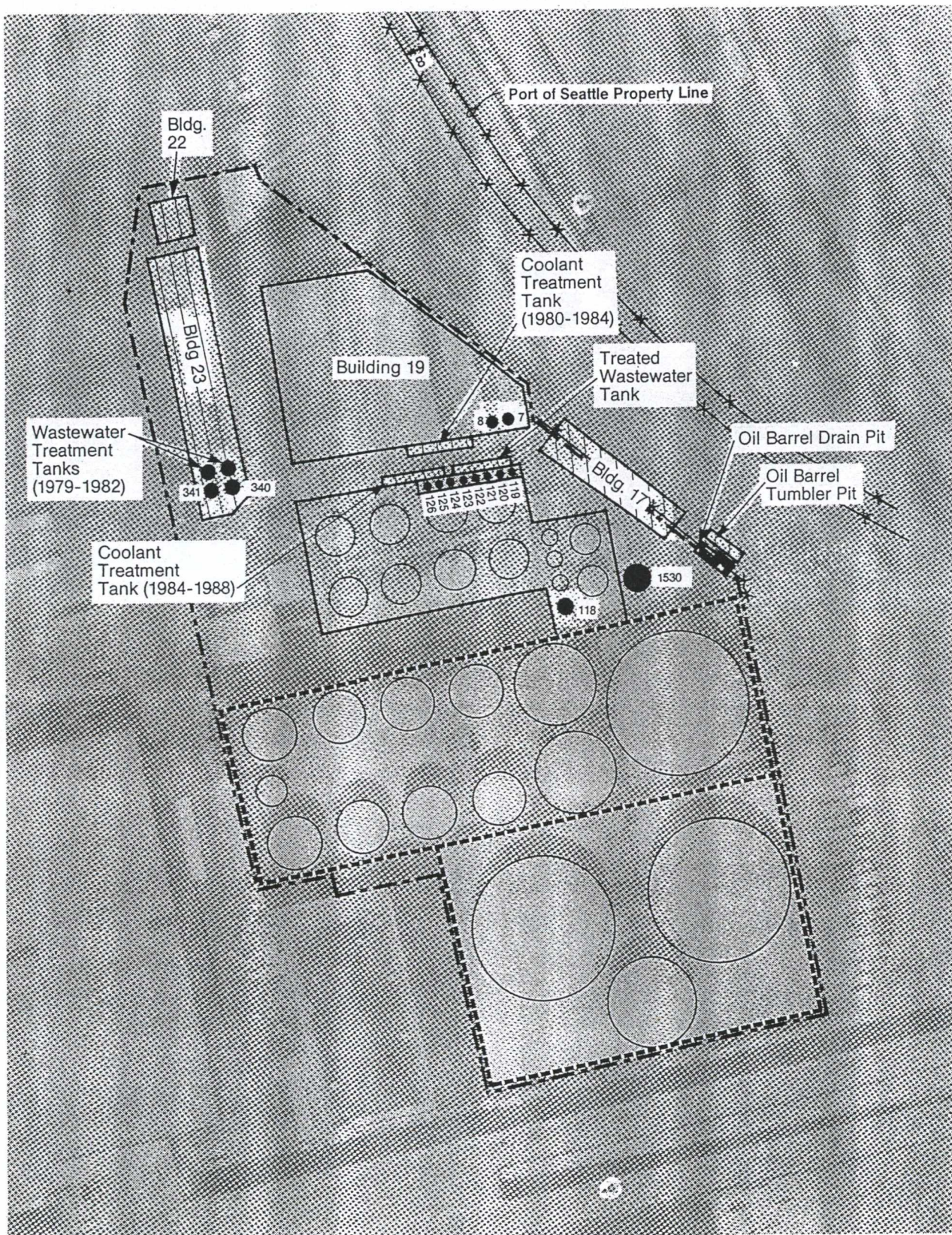
The locations of possible SWMUs closed prior to Chemical Processors, Inc. operations are depicted on Figure 1. Table 1 provides a description of each closed unit shown on Figure 1. Records available for review to date did not provide adequate information on whether these units were used to manage solid waste at any time prior to unit closure; therefore they are designated possible SWMUs. The units are as follows:

- Building 17: Drum Cleaning Building
- Tanks 340 and 341
- Tank 1530
- Tanks 119 -126
- Tanks 7 and 8
- Oil Barrel Drain Pit
- Oil Barrel Tumbler Pit

3.2 Solid Waste Management Units Closed During Chemical Processors, Inc. Operations

The locations of known SWMUs closed during Chemical Processors, Inc. operations are depicted on Figure 1. Table 2 provides a description of each closed SWMU shown on Figure 1. The units are as follows:

- Tank 118
- Wastewater Treatment Tanks (2)
- Coolant Treatment Tank
- Treated Wastewater Tank



Aerial Photography Dated June 1987

- LEGEND
- Approximate location of leased property
 - ✕✕ Existing fenceline
 - ✕✕ Gate
 - 15' Tall concrete block wall
 - Past buildings and rectangular tanks
 - Past tanks



0 50 100 150 feet

FIGURE 1
Closed Units
 Chemical Processors, Inc.
 Pier 91 Facility
 Seattle, Washington

4.0 KNOWN RELEASES TO THE ENVIRONMENT PRIOR TO AND DURING CHEMICAL PROCESSORS, INC. OPERATIONS

Table 3 lists the known releases to the environment from prior or current SWMUs at the Pier 91 Facility. No information was found on releases from SWMUs prior to June 1971, when Chemical Processors, Inc. began operations at the site.

5.0 UNDOCUMENTED POSSIBLE RELEASES TO THE ENVIRONMENT

5.1 Undocumented Possible Releases to the Environment Prior to Chemical Processors, Inc. Operations

Ground contaminated with what appeared to be gasoline was uncovered in July 1987 during excavation for a new sewer discharge apparatus outside the containment wall near Tank 112. Analytic results from soil samples analyzed for volatile organics using EPA Method 624 showed that the volatile organics present were toluene, ethylbenzene, and xylene, with a total concentration of all materials of approximately 5,500 mg/kg in two of the three samples (see Section 6.0 and Attachment A). These are the primary constituents of gasoline, and the ratios between materials are consistent with gasoline. Gasoline was stored in nearby tanks during earlier periods of facility operations between 1926 and mid-1971. With the exception of a 150-gallon underground gasoline storage tank used in another area of the facility from at least 1971 until removal in 1986, Chemical Processors, Inc. has not stored or processed gasoline since it began operations at the facility in June 1971. The underground gasoline tank used by Chemical Processors, Inc. was removed from an area immediately north of the warehouse (Building 19), decontaminated, certified as cleaned, and scrapped in 1986. Ecology and the Port of Seattle were notified of the results of the July 1987 sampling at the Pier 91 Facility.

Conversations with long-time employees indicate that pits were allegedly dug in the black oil yard (tanks 90 to 92) to contain hoses and other cleanup debris following spills in that area. The pits were covered with planks (approximately 2" x 12"), and then covered with soil to match existing conditions in the rest of the yard. One allegation indicates the pits dated from Navy operations and were

discovered during cleanup of the November 1978 oil spill in that area; a second allegation states that a pit was dug in summer 1979 during cleanup of the November 1978 spill to contain cleanup debris from that spill.

Archive drawings of the Pier 91 Facility indicate that the tank bottoms on tanks 96 to 100, 102, and 104 were replaced in the mid-1950s. Tank bottom replacement drawings document the presence of approximately 1 1/2" of oiled sand as an existing foundation under the tanks, with a concrete base of 2 1/2" or more underneath the oiled sand. An additional 4" layer of oil saturated sand was placed under the new tank bottoms at the time of replacement in the mid-1950s. Several archive drawings indicate the oil was probably a hot oil with an asphaltic base, Grade No. 4 or No. 5, and possibly sulphur-free.

5.2 Undocumented Possible Releases to the Environment During Chemical Processors, Inc. Operations

Releases which are undocumented and are not included in Table 2 include occasional releases of oil and oily wastewater during transfer operations between trucks, tanks, rail tankers, and ships. Some of these releases may have reached the soil prior to paving, and may have reached Elliott Bay in cases occurring prior to Chemical Processors, Inc. operations in mid-1971. No documentation of releases to water is available for dates prior to the start of Chemical Processors, Inc. operations. Since the start of Chemical Processors, Inc. operations at the site, contained releases due to operator error are estimated to amount to no more than 3 gallons for each occurrence.

With the exception of concrete bases known to be present under selected tanks, and thought to be present under

others, the tank system yards were unpaved until approximately 1982 (small tank yard) and 1986 (marine diesel oil and black oil tank yards). Containment walls appear to have been present from the start, as indicated by archive drawings dating back to 1926. Concrete or asphalt paving in areas outside the tank system containment walls (e.g. pipe alleys, truck loading/unloading areas, and areas adjacent to the warehouse and other buildings) is indicated on archive drawings dating back to 1949. It is not known if paving was present in these areas prior to 1949. Unpaved soil is still evident for approximately 1/2 inch on either side of the railroad tracks along the west side of the warehouse (Building 19), and in an area of approximately 10' x 12' immediately beside the north entrance ramp to the warehouse. It is not known if these factors have contributed to releases to the environment at the facility prior to paving dates indicated above.

Soil piles present in the marine diesel oil (MDO) and black oil yards between 1980 and 1986 may have been left over from cleanup of the 1980 spill in the MDO Yard; they may have also been from subsequent spills and routine cleanup. The soil piles are not thought to date from the 1978 spill; accounts of the 1978 spill cleanup indicate it was completed by early 1980 (rototilled soil, crushed rock, etc. - see Table 2). Results of sampling conducted in July 1986 indicated that the soil was non-hazardous (see Section 6.0 and Attachment A).

Not long after sampling occurred, portions of the soil piles were contained along buttresses on the containment wall and covered with a concrete top. This action was done by PANOCO, the Chemical Processors, Inc. sublease tenant at the site. Oil seeps out on hot days, but is not always evident and is apparently not always seeping. The MDO and black oil yards were paved with concrete by PANOCO in mid to late

1986, at the same time portions of the soil piles along the containment wall were enclosed.

Sometime in 1986, a majority of the soil piles from the MDO and black oil yards were sent to an approved offsite disposal facility. The remaining soil pile(s) in the east end of the MDO Yard (enough to fill about 15 drums) were removed by May 1988. The drums of soil were sent to the Georgetown Facility for disposal as non-hazardous material, based on results of the 1986 sampling and analytical results (see Section 6.0 and Attachment A).

6.0 ANALYTICAL DATA

Analytic results from water and soil sampling at the Pier 91 Facility are included as Attachment A to this report. These data were obtained as a result of the following efforts:

In May 1983, Chemical Processors, Inc. analyzed samples of dirt contaminated with oil from the Pier 91 Facility. The dirt sampling locations are unknown, but probably included the MDO and/or Black Oil yards where soil piles were sampled in 1986. Results of the June 1983 sampling and analysis (see Attachment A) indicated the dirt was not a hazardous or dangerous waste.

Soil piles present in the MDO and black oil yards between 1980 and 1986 were sampled by Chemical Processors, Inc. in July 1986. Results of soil pile sampling indicated that the soil was non-hazardous (see Attachment A). Containment and removal of the soil piles was previously discussed in Section 5.2.

Other soil samples were collected in July 1987 when Chemical Processors, Inc. excavated an area outside the containment wall near Tank 112, to install a new apparatus for discharge to the Metro sewer system. Ground contaminated with what appeared to be gasoline was uncovered during excavation. Samples were taken of the soil and analyzed using EPA Method 624 for volatile organics. The analytical results are discussed in Section 5.1, and are presented in Attachment A.

Sweet-Edwards/EMCON, Inc. (SE/E) prepared a Phase I Hydrogeological Investigation of the Facility in May 1988. The purpose of the Sweet Edwards study was preliminary site characterization, in order to define the presence of soil and groundwater contamination at the site. Relevant analytical data from this study has been provided to EPA.

SE/E is developing a work plan for further sampling and analysis at additional locations at the Chemical Processors, Inc. Pier 91 Facility. Chemical Processors, Inc. will continue to update characterization of the site and will supply subsequent data and analyses to EPA as they become available.

7.0 REFERENCES

Sources of information reviewed for the Chemical Processors, Inc. Pier 91 Facility SWMU Report include the following:

Corporate Office Files:

- Agency Inspection Reports
- Incident Reports
- Interim Status Documents

Pier 91 Facility Files:

- Incident Reports
- Operating Records
- Unit Closure Records

Personal interviews with company personnel, including vice president of operations, operations manager, Pier 91 Facility manager, and Pier 91 Facility personnel.

Aerial photos of the Terminal 91 area (obtained from a local photo archive). Photos reviewed were dated as follows:

1936	03-20-74
1946	04-22-77
08-07-56	04-27-80
05-27-60	03-03-85
03-25-69	

Port of Seattle archive drawings and interviews with current Port of Seattle Environmental Affairs personnel.

Ecology Files, Northwest Regional Office (Redmond, Washington):

- Reviewed files on Chemical Processors, Inc.

U.S. EPA Files, Region X (Seattle, Washington):
Reviewed files on Chemical Processors, Inc.

Documents reviewed:

Port of Seattle (1976). Final EIS, Proposed and
Potential Projects at Terminal 91 (1976-1980).
October 1986.

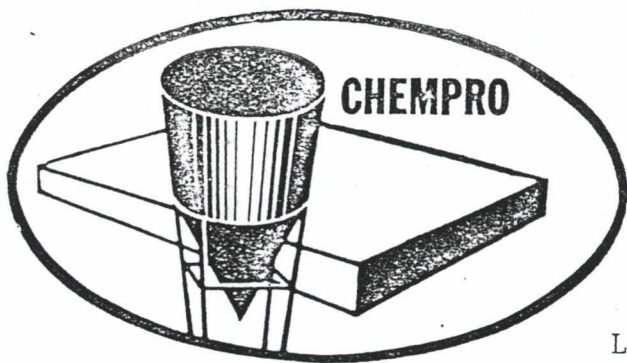
Sweet-Edwards/EMCON, Inc. (1988). Phase I
Hydrogeological Investigation, Chemical Processors,
Inc. Pier 91 Facility, Seattle, Washington.

ATTACHMENT A
PIER 91 FACILITY
ANALYTICAL DATA

PIER 91 FACILITY

Analytical Results, June 1983

Dirt Sampling



Number:
Date: 5/16/83
Plant:

Report to:
Work Order #
Analyst: D & M

CHEMICAL PROCESSORS, INC.

5501 AIRPORT WAY SO.
SEATTLE, WASHINGTON 98108

PHONE: (206) 767-0350

LABORATORY REPORT 5134

Sample: Dirt
Plant: Pico 91
Tank:

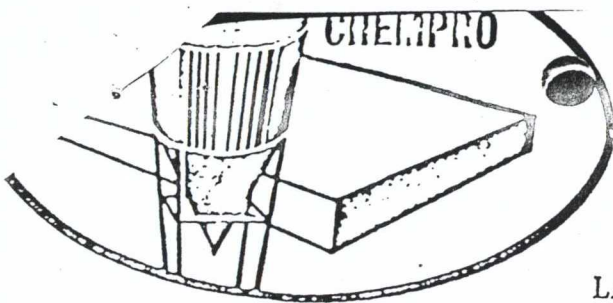
Purpose: TOTAL metals
EPTOX
PNA

Method:

Data: Sample	TOTAL metals							PNA	Chrysene
	Cr	Cu	Ni	Pb	Cd	Zn	Cr		
Dirt	30	72	30	240	<1	210	+	2.1	+
Dirt with Oil	6	90	30	600	<1	270	+	2.6	+
Oil with Dirt	60	600	180	1200	30	280	+	6.2	+

Sample	EPTOXICITY TEST						
	Cr	Cu	Ni	Pb	Cd	Zn	
Dirt	6.2	6.2	6.2	6.5	6.2	6.2	
Dirt w. oil	6.2	6.2	6.2	6.5	6.2	6.2	
oil w. Dirt	6.2	6.2	6.2	6.5	6.2	6.2	

Conclusions:



CHEMICAL PROCESSORS, INC.

5501 AIRPORT WAY SO.
SEATTLE, WASHINGTON 98108

PHONE: (206) 767-0350

LABORATORY REPORT 5134

Sample: Diet
Plant: Pico 91
Tank:

Purpose: Total metals
E-P TOX
PNA

Method:

Sample	Total metals							PNA Total	Chrysomel (C. ...)
	Cr	Cu	Ni	Pb	Cd	Zn	Cr		
Diet	30	72	30	240	<1	210	+	2.1	+
Diet with Oil	6	90	30	600	<1	270	+	2.6	+
Oil with Diet	60	600	180	1200	30	280	+	6.2	+

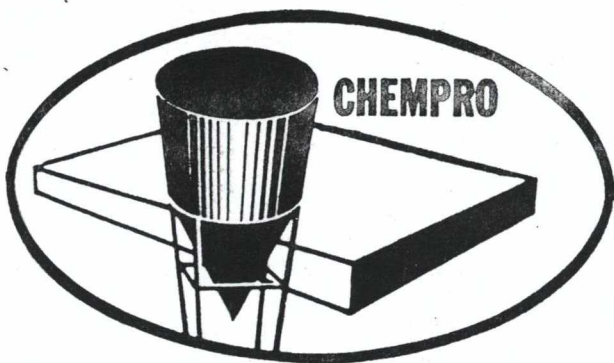
Sample	E-P Toxicity Test					
	Cr	Cu	Ni	Pb	Cd	Zn
Diet	6.2	6.2	6.2	6.5	6.2	6.2
Diet w. oil	6.2	6.2	6.2	6.5	6.2	6.2
Oil w. Diet	6.2	6.2	6.2	6.5	6.2	6.2

Conclusions: What passes E-P Tox & PNA Test for
Hazardous Waste

PIER 91 FACILITY

Analytical Results, July 1986

Soil Pile Sampling in MDO and Black Oil Yards



CHEMICAL PROCESSORS, INC.

5501 AIRPORT WAY SO.
SEATTLE, WASHINGTON 98108

PHONE: (206) 767-0350

DATE: October 6, 1986
TO: Chemical Processors File
FROM: Susan Donahue
SUBJECT: AmTest Results of Soil Samples at Pier 91,
South Yard and Soil in Bin (East of Tank #93)

Attached are the AmTest laboratory results of soil samples obtained from stored dirt piles as described above. Laboratory analyses were conducted for the following parameters:

PNA
Halogenated Hydrocarbon
E.P. Toxicity
Flashpoint
pH
PCB

Results indicated all 3 samples were less than the DOE limitations of a Dangerous Waste. The PCB levels ranged from 2.94 to 8.08 ppm. The sampling field log and laboratory results are attached.

SD:lat

Attachments



am test inc.

14603 N.E. 87th • REDMOND, WASHINGTON 98053 • 206/885-1664

ANALYSIS REPORT

CLIENT: Chemical Processors, Inc.

DATE RECEIVED: 7/15/86

REPORT TO: Ms. Kathy Kreps
5501 Airport Way South
Seattle, WA 98108

DATE REPORTED: 8/28/86

ANALYSIS FOR PNA IN SOIL

Laboratory Sample No.	109770	109771	109772	Detection Limit
Client Identification	Composite	Sample G	Sample #3	(ug/g)
<hr/>				
<u>Parameter (ug/g)</u>				
Naphthalene	ND	ND	ND	10.0
Acenaphthalene	ND	ND	ND	15.0
Fluorene	ND	ND	ND	1.5
Acenaphthene	ND	ND	ND	5.4
Phenanthrene	ND	8.6	12.5	1.0
Anthracene	ND	ND	ND	0.6
Fluoranthrene	ND	ND	ND	4.2
Pyrene	ND	ND	ND	5.4
Benzo (a) anthracene	ND	ND	ND	1.5
Chrysene	ND	ND	ND	1.5
Benzo (b) fluoranthene	ND	ND	ND	3.0
Benzo (k) fluoranthene	36.4	51.9	63.3	3.0
Benzo (a) pyrene	9.1	10.6	15.0	4.0
Dibenzo (a,h) anthracene	ND	ND	ND	12.3
Ideno (1,2,3-cd) pyrene	ND	ND	ND	4.5
Benzo (ghi) perylene	ND	ND	ND	6.0

NOTE: Final analysis performed on Fraction #6 portion of the DOE Procedure.

CONTINUED



SEP - 8 1986

-2-

CLIENT: Chemical Processors, Inc.

DATE RECEIVED: 7/15/86

REPORT TO: Ms. Kathy Kreps

DATE REPORTED: 8/28/86

Laboratory Sample Number	109770	109771	109772
Client Identification	Composite	Sample G	Sample 3
<hr/>			
Fraction #1 Residue	17.8%	22.6%	27.7%
Fraction #4 Residue	6.54%	8.86%	26.1%
Fraction #6 Residue	1.55%	2.37%	4.25%
Halogenated Hydrocarbons:			
As Chloride in Residue #1	<0.000022%	0.000025%	0.000031%
As Fluoride in Residue #1	0.0000003%	0.0000049%	0.0000052%

REPORTED BY


John A. Hicks

JAH/pb



am test inc.

14603 N.E. 87th • REDMOND, WASHINGTON 98053 • 206/885-1664

ANALYSIS REPORT

CLIENT: Chemical Processors

DATE REPORTED: 10/28/86

REPORT TO: Susan Donahue
5501 Airport Way South
Seattle, WA 98108

Laboratory Sample No.	Client Identification	PCB Type	Concentration (ug/g)
109767	Taylor Way Sump. Sludge #11147	A-1260	5.3
109768	Taylor Way Locomotive Chanals #308263	A-1016	36.8
109769	T.W.L.C. #308304	---	<1.0
109770	#1 Comp. ABCDEF	A-1260	8.08
109771	#2 "G"	A-1260	2.94
109772	#3 Pier 91 Dirt & Tank	A-1260	6.37

REPORTED BY

Liz Anderson
Liz Anderson

LA:vb



am test inc.

14603 N.E. 87th • REDMOND, WASHINGTON 98053 • 206/885-1664

ANALYSIS REPORT

CLIENT: Chemical Processors

DATE REPORTED: 10/29/86

REPORT TO: Susan Donahue
5501 Airport Way South
Seattle, WA 98108

EP TOXICITY ANALYSIS

Laboratory Sample Number	109770	109771	109772	Maximum Allowable Concentration (mg/l)
Client Identification	Composite	Sample G	#3 Pier 91 Dirt	
Arsenic	<0.02	0.02	<0.02	5.0
Barium	<1.0	<1.0	<1.0	100.0
Cadmium	<0.05	<0.05	<0.05	1.0
Chromium	<0.05	<0.05	<0.05	5.0
Lead	0.3	<0.2	0.2	5.0
Mercury	0.001	<0.001	<0.001	0.2
Selenium	<0.01	<0.01	<0.01	1.0
Silver	<0.05	<0.05	<0.05	5.0

Results reported in mg/l.

Corrosivity (pH)	4.84	5.78	6.23
Ignitability (°F) (Flash Point)	133	146	168

corrected to 167° F.
see Lab Report
dated 03-24-87

REPORTED BY

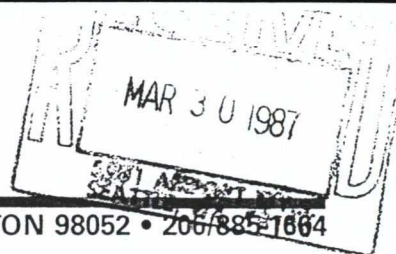
Marc Osso
Marc Osso

MO:vb



am test inc.

14603 N.E. 87th St. • REDMOND, WASHINGTON 98052 • 206/885-1664



ANALYSIS REPORT

CLIENT: Chemical Processors

DATE RECEIVED: 8/28/86

REPORT TO: Kathy Kreps
5501 Airport Way S.
Seattle, WA 98108

DATE REPORTED: 3/24/87

Laboratory Sample No.

109770

Client Identification

#1 Composite A-F

Flash Point

167°F

REPORTED BY

Mark Osso

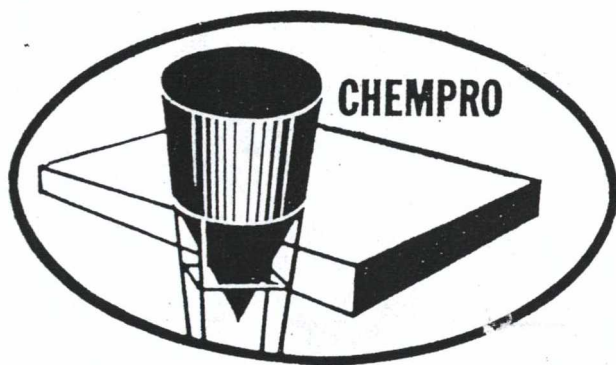
Mark Osso

MO:ce

PIER 91 FACILITY

Analytical Results, July 1987

Soil Sampling During Sewer Discharge Line Revision



CHEMICAL PROCESSORS, INC.

5501 AIRPORT WAY SO.
SEATTLE, WASHINGTON 98108

PHONE: (206) 767-0350

October 30, 1987

Laurence Ashley
Washington Department of Ecology
Northwest Regional Office
4350 - 150th Avenue N.E.
Redmond, WA 98052

Dear Mr. Ashley:

While excavating for a sewer line modification at Chempro's Pier 91 facility, ground contaminated with what appears to be gasoline was uncovered. Samples were taken of the soil and analyzed using EPA method 624 for volatile organics.

The results showed that the only volatile organics present were toluene, ethylbenzene and xylene. The total concentration of these materials was approximately 5500 mg/kg in both samples. These are primary constituents of gasoline and the ratios between the materials is consistent with gasoline.

As you know, Pier 91 was originally built and operated as a fuel facility by Texaco and was subsequently owned and operated by the U.S. Navy. Historically, gasoline was stored for a number of years at this facility. However, Chempro has not stored or processed gasoline during its operations on this site.

If you have any questions, please contact me at 223-0500.

Sincerely,

Dennis Stefani
Manager, Regulatory Affairs

DFS:tk

cc: M. S. Palumbo
W. E. Fisher
M. P. Keller
Dave Aggerholm, Port of Seattle



**ANALYTICAL
RESOURCES
INCORPORATED**

Analytical
Chemists &
Consultants

333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490

ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: Method Blank

Lab Sample ID: 0730MB
Sample Matrix: Sediments

QC Report No: 1000 - Chempro
Project No: Pier 91
Date Received: 21 July 1987

Data Release Authorized: *Sum D. Rao*

Conc Level: Low
Date Prepared: 7/30/87
Date Analyzed: 7/30/87

Amount analyzed: 5 gm
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	3.2 U
74-83-9	Bromomethane	4.2 U
75-01-4	Vinyl Chloride	3.7 U
75-00-3	Chloroethane	4.4 U
75-09-2	Methylene Chloride	2.7 J
67-64-1	Acetone	11.6 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	4.5 U
75-34-3	1,1-Dichloroethane	2.0 U
156-60-5	Trans-1,2-Dichloroethene	2.7 U
67-66-3	Chloroform	2.5 U
107-06-2	1,2-Dichloroethane	2.3 U
78-93-3	2-Butanone	6.3 U
71-55-6	1,1,1-Trichloroethane	1.6 U
56-23-5	Carbon Tetrachloride	1.7 U
108-05-4	Vinyl Acetate	5.8 U
75-27-4	Bromodichloromethane	1.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.6 U
10061-02-6	Trans-1,3-Dichloropropene	1.7 U
79-01-6	Trichloroethene	1.4 U
124-48-1	Dibromochloromethane	1.6 U
79-00-5	1,1,2-Trichloroethane	1.6 U
71-43-2	Benzene	1.7 U
10061-01-5	cis-1,3-Dichloropropene	1.7 U
110-75-8	2-Chloroethylvinylether	2.6 U
75-25-2	Bromoform	1.9 U
108-10-1	4-Methyl-2-Pentanone	3.6 U
591-78-6	2-Hexanone	1.9 U
127-18-4	Tetrachloroethene	1.2 U
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	0.5 M
108-90-7	Chlorobenzene	1.3 U
100-41-4	Ethylbenzene	1.1 J
100-42-5	Styrene	2.7 U
	Total Xylenes	4.3

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	102%
Bromofluorobenzene	103%
d4-1,2-Dichloroethane	90.6%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
NR	Analysis not required		

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INCORPORATED**Analytical
Chemists &
Consultants333 Ninth Ave. North
Seattle, Wa 98109-5187
(206) 621-6490**ORGANICS ANALYSIS DATA SHEET - METHOD 624****Sample No: Pier 91 #3**Lab Sample ID: 1000C
Sample Matrix: SedimentsQC Report No: 1000 - Champro
Project No: Pier 91
Date Received: 21 July 1987Data Release Authorized: *[Signature]*Conc Level: Low
Date Prepared: 7/30/87
Date Analyzed: 7/30/87Amount analyzed: 0.000376 gm dry weight equivalent
Percent Moisture: 92.4
pH: NA

CAS Number		mg/Kg
74-87-3	Chloromethane	44 U
74-83-9	Bromomethane	57 U
75-01-4	Vinyl Chloride	50 U
75-00-3	Chloroethane	60 U
75-09-2	Methylene Chloride	65 B
67-64-1	Acetone	160 U
75-15-0	Carbon Disulfide	27 U
75-35-4	1,1-Dichloroethene	61 U
75-34-3	1,1-Dichloroethane	27 U
156-60-5	Trans-1,2-Dichloroethene	37 U
67-66-3	Chloroform	34 U
107-06-2	1,2-Dichloroethane	31 U
78-93-3	2-Butanone	86 U
71-55-6	1,1,1-Trichloroethane	22 U
56-23-5	Carbon Tetrachloride	23 U
108-05-4	Vinyl Acetate	79 U
75-27-4	Bromodichloromethane	18 U

CAS Number		mg/Kg
78-87-5	1,2-Dichloropropane	22 U
10061-02-6	Trans-1,3-Dichloropropene	23 U
79-01-6	Trichloroethene	19 U
124-48-1	Dibromochloromethane	22 U
79-00-5	1,1,2-Trichloroethane	22 U
71-43-2	Benzene	23 U
10061-01-5	cis-1,3-Dichloropropene	23 U
110-75-8	2-Chloroethylvinylether	35 U
75-25-2	Bromoform	26 U
108-10-1	4-Methyl-2-Pentanone	49 U
591-78-6	2-Hexanone	26 U
127-18-4	Tetrachloroethene	16 U
79-34-5	1,1,2,2-Tetrachloroethane	29 U
108-88-3	Toluene	1100
108-90-7	Chlorobenzene	18 U
100-41-4	Ethylbenzene	1200
100-42-5	Styrene	37 U
	Total Xylenes	3100

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	105%
Bromofluorobenzene	104%
d4-1,2-Dichloroethane	91.1%

*Surrogate recoveries indicate the validity
of a given analysis**Data Reporting Qualifiers**

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
S	Ion count saturated (analyte present at a level beyond inst ion count capacity)		



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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: Pier 91 #2

QC Report No: 1000 - Chempro

Project No: Pier 91

Date Received: 21 July 1987

Lab Sample ID:

1000B

Sample Matrix:

Sediments

Data Release Authorized:

[Signature]

Conc Level: Low

Date Prepared: 7/30/87

Date Analyzed: 7/30/87

Amount analyzed: 0.000368 gm dry weight equivalent

Percent Moisture: 91.5

pH: NA

CAS Number		mg/Kg
74-87-3	Chloromethane	44 U
74-83-9	Bromomethane	57 U
75-01-4	Vinyl Chloride	50 U
75-00-3	Chloroethane	60 U
75-09-2	Methylene Chloride	68 B
67-64-1	Acetone	160 U
75-15-0	Carbon Disulfide	27 U
75-35-4	1,1-Dichloroethene	61 U
75-34-3	1,1-Dichloroethane	27 U
156-60-5	Trans-1,2-Dichloroethene	37 U
67-66-3	Chloroform	34 U
107-06-2	1,2-Dichloroethane	31 U
78-93-3	2-Butanone	86 U
71-55-6	1,1,1-Trichloroethane	22 U
56-23-5	Carbon Tetrachloride	23 U
108-05-4	Vinyl Acetate	79 U
75-27-4	Bromodichloromethane	18 U

CAS Number		mg/Kg
78-87-5	1,2-Dichloropropane	22 U
10061-02-6	Trans-1,3-Dichloropropene	23 U
79-01-6	Trichloroethene	19 U
124-48-1	Dibromochloromethane	22 U
79-00-5	1,1,2-Trichloroethane	22 U
71-43-2	Benzene	23 U
10061-01-5	cis-1,3-Dichloropropene	23 U
110-75-8	2-Chloroethylvinylether	35 U
75-25-2	Bromoform	26 U
108-10-1	4-Methyl-2-Pentanone	49 U
591-78-6	2-Hexanone	26 U
127-18-4	Tetrachloroethene	16 U
79-34-5	1,1,2,2-Tetrachloroethane	29 U
108-88-3	Toluene	130
108-90-7	Chlorobenzene	18 U
100-41-4	Ethylbenzene	420
100-42-5	Styrene	37 U
	Total Xylenes	1400

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	103%
Bromofluorobenzene	105%
d4-1,2-Dichloroethane	91.6%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
S	Ion count saturated (analyte present at a level beyond inst ion count capacity)		



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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: Method Blank

Lab Sample ID: 0729MB
Sample Matrix: Sediments

QC Report No: 4000 - Chempro
Project No: Pier 91
Date Received: 21 July 1987

Data Release Authorized: *Lucia D. Carson*

Conc Level: Low
Date Prepared: 7/29/87
Date Analyzed: 7/29/87

Amount analyzed: 5 gm
Percent Moisture: NA
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	3.2 U
74-83-9	Bromomethane	4.2 U
75-01-4	Vinyl Chloride	3.7 U
75-00-3	Chloroethane	4.4 U
75-09-2	Methylene Chloride	2.9 J
67-64-1	Acetone	11.6 U
75-15-0	Carbon Disulfide	2.0 U
75-35-4	1,1-Dichloroethene	4.5 U
75-34-3	1,1-Dichloroethane	2.0 U
156-60-5	Trans-1,2-Dichloroethene	2.7 U
67-66-3	Chloroform	2.5 U
107-06-2	1,2-Dichloroethane	2.3 U
78-93-3	2-Butanone	6.3 U
71-55-6	1,1,1-Trichloroethane	1.6 U
56-23-5	Carbon Tetrachloride	1.7 U
108-05-4	Vinyl Acetate	5.8 U
75-27-4	Bromodichloromethane	1.3 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	1.6 U
10061-02-6	Trans-1,3-Dichloropropene	1.7 U
79-01-6	Trichloroethene	1.4 U
124-48-1	Dibromochloromethane	1.6 U
79-00-5	1,1,2-Trichloroethane	1.6 U
71-43-2	Benzene	1.7 U
10061-01-5	cis-1,3-Dichloropropene	1.7 U
110-75-8	2-Chloroethylvinylether	2.6 U
75-25-2	Bromoform	1.9 U
108-10-1	4-Methyl-2-Pentanone	3.6 U
591-78-6	2-Hexanone	1.9 U
127-18-4	Tetrachloroethene	1.2 U
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U
108-88-3	Toluene	1.5 U
108-90-7	Chlorobenzene	1.3 U
100-41-4	Ethylbenzene	2.1 U
100-42-5	Styrene	2.7 U
	Total Xylenes	2.4 U

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	98.2%
Bromofluorobenzene	111%
d4-1,2-Dichloroethane	94.6%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
U	Indicates compound was analyzed for but not detected at the given detection limit.
J	Indicates an estimated value when result is less than specified detection limit.
NR	Analysis not required

B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.



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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Lab Sample ID: 1000AR2
Sample Matrix: Sediments

Data Release Authorized: *Susan D. Lam*

Sample No: Pier 91 #1 Rerun 2

QC Report No: 1000 - Chempro
Project No: Pier 91
Date Received: 21 July 1987

Conc Level: Low
Date Prepared: 7/30/87
Date Analyzed: 7/30/87

Amount analyzed: 0.000366 gm dry weight equivalent
Percent Moisture: 0.91
pH: NA

CAS Number		mg/Kg
74-87-3	Chloromethane	44 U
74-83-9	Bromomethane	57 U
75-01-4	Vinyl Chloride	51 U
75-00-3	Chloroethane	60 U
75-09-2	Methylene Chloride	99 B
67-64-1	Acetone	160 U
75-15-0	Carbon Disulfide	27 U
75-35-4	1,1-Dichloroethene	62 U
75-34-3	1,1-Dichloroethane	27 U
156-60-5	Trans-1,2-Dichloroethene	37 U
67-66-3	Chloroform	34 U
107-06-2	1,2-Dichloroethane	31 U
78-93-3	2-Butanone	86 U
71-55-6	1,1,1-Trichloroethane	22 U
56-23-5	Carbon Tetrachloride	23 U
108-05-4	Vinyl Acetate	79 U
75-27-4	Bromodichloromethane	18 U

CAS Number		mg/Kg
78-87-5	1,2-Dichloropropane	22 U
10061-02-6	Trans-1,3-Dichloropropene	23 U
79-01-6	Trichloroethene	19 U
124-48-1	Dibromochloromethane	22 U
79-00-5	1,1,2-Trichloroethane	22 U
71-43-2	Benzene	23 U
10061-01-5	cis-1,3-Dichloropropene	23 U
110-75-8	2-Chloroethylvinylether	36 U
75-25-2	Bromoform	26 U
108-10-1	4-Methyl-2-Pentanone	49 U
591-78-6	2-Hexanone	26 U
127-18-4	Tetrachloroethene	16 U
79-34-5	1,1,2,2-Tetrachloroethane	29 U
108-88-3	Toluene	380 B
108-90-7	Chlorobenzene	18 U
100-41-4	Ethylbenzene	1200 B
100-42-5	Styrene	37 U
	Total Xylenes	4000 B

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	104%
Bromofluorobenzene	104%
d4-1,2-Dichloroethane	92.3%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
S	Ion count saturated (analyte present at a level beyond inst ion count capacity)		



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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: Pier 91 #1 Rerun

Lab Sample ID: 1000AR
Sample Matrix: Sediments

QC Report No: 1000 - Chempro
Project No: Pier 91
Date Received: 21 July 1987

Data Release Authorized: *Luan Olson*

Conc Level: Medium
Date Prepared: 7/30/87
Date Analyzed: 7/30/87

Amount analyzed: 0.0091 gm (dry weight)
Percent Moisture: 0.91
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	1800 U
74-83-9	Bromomethane	2300 U
75-01-4	Vinyl Chloride	2000 U
75-00-3	Chloroethane	2400 U
75-09-2	Methylene Chloride	4100 B
67-64-1	Acetone	6400 U
75-15-0	Carbon Disulfide	1100 U
75-35-4	1,1-Dichloroethene	2500 U
75-34-3	1,1-Dichloroethane	1100 U
156-60-5	Trans-1,2-Dichloroethene	1500 U
67-66-3	Chloroform	1400 U
107-06-2	1,2-Dichloroethane	1300 U
78-93-3	2-Butanone	3500 U
71-55-6	1,1,1-Trichloroethane	880 U
56-23-5	Carbon Tetrachloride	930 U
108-05-4	Vinyl Acetate	3200 U
75-27-4	Bromodichloromethane	710 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	880 U
10061-02-6	Trans-1,3-Dichloropropene	930 U
79-01-6	Trichloroethene	770 U
124-48-1	Dibromochloromethane	880 U
79-00-5	1,1,2-Trichloroethane	880 U
71-43-2	Benzene	930 U
10061-01-5	cis-1,3-Dichloropropene	930 U
110-75-8	2-Chloroethylvinylether	1400 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	2000 U
591-78-6	2-Hexanone	1000 U
127-18-4	Tetrachloroethene	660 U
79-34-5	1,1,2,2-Tetrachloroethane	1200 U
108-88-3	Toluene	360000 K
108-90-7	Chlorobenzene	710 U
100-41-4	Ethylbenzene	809000 K
100-42-5	Styrene	1500 U
	Total Xylenes	1900000 K

***Volatile Organic
Surrogate Recoveries**

d8-Toluene	120%
Bromofluorobenzene	110%
d4-1,2-Dichloroethane	92.4%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.	B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
U	Indicates compound was analyzed for but not detected at the given detection limit.	K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
J	Indicates an estimated value when result is less than specified detection limit.	M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.
S	Ion count saturated (analyte present at a level beyond inst ion count capacity)		



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ORGANICS ANALYSIS DATA SHEET - METHOD 624

Sample No: Pier 91 #1

Lab Sample ID: 1000A
Sample Matrix: Sediments

QC Report No: 1000 - Chempro
Project No: Pier 91
Date Received: 21 July 1987

Data Release Authorized: *Susan D. Allen*

Conc Level: Low
Date Prepared: 7/29/87
Date Analyzed: 7/29/87

Amount analyzed: 0.96 gm (dry weight)
Percent Moisture: 0.91
pH: NA

CAS Number		µg/Kg
74-87-3	Chloromethane	17 U
74-83-9	Bromomethane	22 U
75-01-4	Vinyl Chloride	19 U
75-00-3	Chloroethane	23 U
75-09-2	Methylene Chloride	33 B
67-64-1	Acetone	1900 K
75-15-0	Carbon Disulfide	10 U
75-35-4	1,1-Dichloroethene	23 U
75-34-3	1,1-Dichloroethane	10 U
156-60-5	Trans-1,2-Dichloroethene	14 U
67-66-3	Chloroform	5 J
107-06-2	1,2-Dichloroethane	12 U
78-93-3	2-Butanone	33 U
71-55-6	1,1,1-Trichloroethane	37
56-23-5	Carbon Tetrachloride	9 U
108-05-4	Vinyl Acetate	30 U
75-27-4	Bromodichloromethane	7 U

CAS Number		µg/Kg
78-87-5	1,2-Dichloropropane	8 U
10061-02-6	Trans-1,3-Dichloropropene	9 U
79-01-6	Trichloroethene	74
124-48-1	Dibromochloromethane	8 U
79-00-5	1,1,2-Trichloroethane	8 U
71-43-2	Benzene	7 J
10061-01-5	cis-1,3-Dichloropropene	9 U
110-75-8	2-Chloroethylvinylether	14 U
75-25-2	Bromoform	10 U
108-10-1	4-Methyl-2-Pentanone	19 U
591-78-6	2-Hexanone	10 U
127-18-4	Tetrachloroethene	12
79-34-5	1,1,2,2-Tetrachloroethane	11 U
108-88-3	Toluene	17000 S
108-90-7	Chlorobenzene	7 U
100-41-4	Ethylbenzene	35000 S
100-42-5	Styrene	14 U
	Total Xylenes	88000 S

*Volatile Organic
Surrogate Recoveries

d8-Toluene	30.4%
Bromofluorobenzene	259%
d4-1,2-Dichloroethane	91.5%

*Surrogate recoveries indicate the validity
of a given analysis

Data Reporting Qualifiers

Value	If the result is a value greater than or equal to the detection limit, report the value.
U	Indicates compound was analyzed for but not detected at the given detection limit.
J	Indicates an estimated value when result is less than specified detection limit.
S	Ion count saturated (analyte present at a level beyond inst ion count capacity)

B	This flag is used when the analyte is found in the blank as well as a sample. Indicates possible/probable blank contamination.
K	This flag is used when quantitated value falls above the limit of the calibration curve and dilution should be run.
M	Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match parameters.

ATTACHMENT B

EPA Enclosure A:

Information Regarding Potential Releases
From Solid Waste Management Units

INFORMATION REGARDING POTENTIAL RELEASES FROM SOLID WASTE MANAGEMENT UNITS

FACILITY NAME: Chemical Processors, Inc.
Pier 91 Facility

EPA I. D. NUMBER: WAD000812917

LOCATION City Seattle

State Washington

1. Are there any of the following solid waste management units (existing or closed) at your facility? NOTE - DO NOT INCLUDE HAZARDOUS WASTE UNITS CURRENTLY SHOWN IN YOUR PART A OR B APPLICATION

	<u>Yes</u>	<u>No</u>
• Landfill	—	<u>X</u>
• Surface Impoundment	—	<u>X</u>
• Land Farm	—	<u>X</u>
• Incinerator	—	<u>X</u>
• Storage Tank (Above Ground)	<u>X</u>	—
• Storage Tank (Underground)	—	<u>X</u>
• Container Storage Area	—	<u>X</u>
• Injection Wells	—	<u>X</u>
• Wastewater Treatment Units	<u>X</u>	—
• Transfer Stations	—	<u>X</u>
• Waste Recycling Operations	—	<u>X</u>
• Other Waste Handling Areas Not Covered Above	—	<u>X</u>

2. If there are "Yes" answers to any of the items in Number 1 above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, please focus on whether or not the wastes would be considered as hazardous waste or hazardous constituents under RCRA. Also, include any available data on quantities or volumes of wastes disposed of and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions, location at facility, provide a site plan if available.

See Section 3.0 and Figure 1, and Tables 1 and 2 in the
attached Solid Waste Management Unit (SWMU) Report.

NOTE: Hazardous wastes are those identified in 40 CFR Part 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.

3. For the units noted in Number 1 above and also those hazardous waste units in your Part A or B application, please describe for each unit any data available on any prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or may still be occurring.

Please provide the following information:

- a. Date of release
- b. Type of waste released
- c. Quantity or volume of waste released
- d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)

See Sections 4.0 and 5.0, and Table 3 in the attached SWMU Report.

4. In regard to the prior releases described in Number 3 above, please provide (for each unit) any analytical data that may be available which would describe the nature and extent of environmental contamination that exists as a result of such releases. Please focus on concentrations of hazardous wastes or constituents present in contaminated soil or groundwater.

See Section 6.0 in the attached SWMU Report.

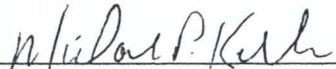
5. Describe the approximate dates and locations of product spills and releases which have occurred or are recurring at your facility and any cleanup operations which have occurred relative to these incidents.

See Sections 4.0 and 5.0, and Table 3, in the attached SWMU Report.

Signature and Certification

As with reports in RCRA Permit Applications, submittal of this information must contain the following certification and signature by a principal executive officer, of at least the level of Vice President or by a duly authorized representative of that person:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Signature

Michael Keller, Vice President of Operations
Name and Title (Typed)

INSTRUCTION FOR COMPLETING ENCLOSURE A

"INFORMATION REGARDING POTENTIAL RELEASES FROM
SOLID WASTE MANAGEMENT UNITS"

Prior to any final determination regarding your interim status permit, we must assess any past releases of hazardous waste or constituents from any active or closed solid or hazardous waste management unit(s) on the facility property. In order to accomplish this, you are requested to submit the following information:

- 1) For all waste handling units on your property (including landfills, storage facilities, waste piles, surface impoundments, wastewater treatment units, injection wells, transfer facilities, resource recovery facilities, and any other waste handling operation), identify all past and present releases and spills of waste material. Include both solid and hazardous wastes. Give the approximate dates and locations of each spill or release.
- 2) List the approximate dates and locations of product spills, leaks, releases, and drippings (other than into a product tank) which have occurred or are recurring at your facility.
- 3) Identify all areas on your facility property where any products or wastes have been buried, impounded, spilled, or leaked.
- 4) For all items identified above, describe the composition of the material and the process or activity from which it resulted or in which it was used.

To assist you in providing this information, a checklist has been enclosed for you to complete. This checklist, along with all other pertinent information, should be sent to George Hofer, Chief, RCRA Permits Section, Environmental Protection Agency, 1200 Sixth Avenue, Seattle, Washington 98101 within 30 days of receipt of this letter. A copy should also be sent to Tim Nord, Washington Department of Ecology, Mail Stop PV-11, Olympia, Washington 98504-8711.

All facility records should be reviewed in obtaining the requested information, including the personal recollection of longtime employees and past owners and operators. This information is requested under the authority of Section 3007 of RCRA. A handler of hazardous waste who fails to provide information requested under Section 3007 violates the law and may be subject to enforcement action, including administrative penalties, under Section 3008 of RCRA.

Table 1 - Pier 91 Facility: Possible Solid Waste Management Units Closed Prior To Chemical Processors, Inc. Operations

page: 1

UNIT NO. DESCRIPTION	PROCESS USE ACTIVE PERIODS	PRODUCT OR DANGEROUS WASTE CONTAINED	(GALLONS) CAPACITY	DIMENSIONS	MATERIAL OF CONSTRUCTION	STRUCTURE TYPE	COMMENTS	KNOWN RELEASES
Building 17: Drum Cleaning Building	1926 - 1977: Exact use unknown. Possibly inactive, ?-1977. Adjacent tank systems used for petroleum refining in 1920's; for oil storage and reclamation since 1940s.	Unknown	Unknown	Approx. 100' x 25' (2715 square feet)	Metal	Building	Shed roof extension (approx. 37' x 23', open on 3 sides) added to SE side of building in approx. 1950. Building and extension dismantled 1977.	None
Tanks 340 and 341	1926 to ?; Use unknown. Possibly inactive or removed between 1936 and 1977.	Unknown	Unknown	10' x 20'	Unknown	Aboveground tank	Originally outdoors. Enclosed between 1936 and 1946 when Boiler House (Bldg 23) was expanded. Tanks removed prior to 1977, when Boiler House (Bldg 23) was dismantled.	None
Tank 1530	1926 - approx. 1936: agitator tank.	Unknown	63,000	Unknown	Unknown	Aboveground tank	Removed by 1936.	None
Tanks 119-126	Approx. 1936 - approx. 1948: use unknown.	Unknown	Unknown	Unknown	Unknown	Elevated aboveground tanks	Formerly designated tanks 50 through 57 (at same location) Removed approx. 1948.	None
Oil Barrel Drain Pit	Approx. 1950 - ?; oil barrel drain pit.	Unknown	Unknown	Approx. 18'L x 3 1/2'W x ?'D	Presumably concrete	Belowground tank, covered with shed roof	Removal date unknown. Shed roof and adjacent building dismantled in 1977.	None
Oil Barrel Tumbler Pit	Approx. 1950 - ? oil barrel tumbler pit.	Unknown	Unknown	Approx. 17 1/2'L x 5'W x ?'D	Same as above.	Same as above.	Same as above.	None

Table 1 - Pier 91 Facility: Possible Solid Waste Management Units Closed Prior To Chemical Processors, Inc. Operations

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UNIT NO. DESCRIPTION	PROCESS USE ACTIVE PERIODS	PRODUCT OR DANGEROUS WASTE CONTAINED	(GALLONS) CAPACITY	DIMENSIONS	MATERIAL OF CONSTRUCTION	STRUCTURE TYPE	COMMENTS	KNOWN RELEASES
Tanks 7 and 8	Approx. 1944 (or earlier) - ?; lube oil cleaning (water removal). Inactive 1971 (or earlier) to present.	Lube oil	Approx. 1,200	Appx. 8'L x 12'D with 3'vented cone-topped extension apparently added later	Steel	Elevated aboveground tanks	Labeled as kettles in 1944 archive drawing. Small lube oil centrifuge formerly located adjacent to tanks was disconnected in mid to late 1970s, and is presently stored elsewhere in warehouse. Tank piping, fittings and valves were disconnected and removed at that time. Drip pans are still present beneath the tanks.	None

Table 3 - Pier 91 Facility: Known Releases to the Environment

page: 1

UNIT	DATE OF RELEASE	TYPE OF PRODUCT OR WASTE RELEASED (a)	APPROX. QTY/ VOL. RELEASED	MEDIA	NATURE OF RELEASE	HOW RELEASE DETECTED	AGENCY NOTIFIED	MIGRATION PATH	ACTIONS TAKEN
Tank 91	11-15-78	Bunker C	420,000	Soil	Valve to a nearly full tank was inadvertently left open during an oil transfer to 2 other tanks. Oil discharged out of breathers in over-filled tank.	Visual observation.	Yes: (USCG). Ecology notified by Fire Depart. (Seattle)	Oil contained within black oil yard and MDO yard diked areas. Diked area floors were unpaved.	Approximately 1/3 of 420,000 gallons recovered by 01-10-79 Ecology inspection. Remaining oil still covered diked area at time of Ecology inspection. Chempro dug holes in the area, let spilled oil seep in, and pumped it out. Documented plans were to salvage approximately 70% and process 30% of released material. Soil was rototilled in mid-1979; then drain tile and crushed rock were added to the yards. Cleanup was completed by late 1979 or early 1980. The tank system yard was fully paved in 1986.

Table 3 - Pier 91 Facility: Known Releases to the Environment

page: 2

UNIT	DATE OF RELEASE	TYPE OF PRODUCT OR WASTE RELEASED (a)	APPROX. QTY/ VOL. RELEASED	MEDIA	NATURE OF RELEASE	HOW RELEASE DETECTED	AGENCY NOTIFIED	MIGRATION PATH	ACTIONS TAKEN
Tank 94	07-05-80	Oil	63,000 - 113,400 gal.	Soil	Operator error: valve to Tank 94 left open during transfer from Tank 93 to Tank 91. Tank 94 overflowed.	Visual observation.	Unknown	Released to gravel-covered unpaved area within diked yard.	Documented plans were to recover spilled oil off the ground and direct it to an on site - tank for reclamation. Soil piles in the yard (possibly from this spill; possibly from subsequent spills and routine cleanup) were removed from the area in 1986 and 1987. Analytical results from soil pile sampling in July 1986 indicated that the soil was non-hazardous (see Section 6.0 and Attachment A). The tank system yard was fully paved in 1986.
RR Tracks, West of Warehouse (Bldg 19)	Dec 77 or Jan 88	Bunker fuel.	Approx. 6,000 to 10,000 gallons	Asphalt and soil	Steam pump hose broke free from rail car valve, during unloading.	Visual observation.	Unknown	Release spread under warehouse (Building 19), along RR tracks, and into storm drains in immediate vicinity.	Released material pumped to on-site tank. Residue removed with shovels and absorbent. Spill area cleaned with detergent and steam cleaners.
RR Tracks, West of Warehouse (Bldg 19)	1984 or 1985	High pure oil.	Up to 20,000 gal.	Asphalt and soil	Internal valve on rail car froze open prior to unloading to sublease tenant's tank system. Release occurred while replacement of fitting was in progress.	Visual observation.	Yes (Ecology)	Release spread along railroad tracks.	Released material was picked up with vacuum truck. The spill area was scraped, cleaned with detergent, and steam cleaned.

Table 3 - Pier 91 Facility: Known Releases to the Environment

page: 3

UNIT	DATE OF RELEASE	TYPE OF PRODUCT OR WASTE RELEASED (a)	APPROX. QTY/ VOL. RELEASED	MEDIA	NATURE OF RELEASE	HOW RELEASE DETECTED	AGENCY NOTIFIED	MIGRATION PATH	ACTIONS TAKEN
Pier Pipeline System	03-11-78	Bunker C	42 gal	Asphalt paving; possible release to water	Earthquake caused pipeline rupture.	Visual observation.	Unknown	Ruptured pipeline allowed release to asphalt paving near sublease tenant's truck loading/unloading area (west of tank farm wall near tanks 102- 104). One gallon travelled to storm drain with connection to Elliott Bay.	Released material was picked up with shovels and absorbent pads. Port of Seattle repaired pipeline and repaved asphalt.
Pier Pipeline System	02-06-79	Bunker oil	50 - 100 gal	Presumably asphalt on Pier.	Overflowing valve pit.	Unknown	Yes, (Ecology)	Released on Pier.	Spill contained on dock.
Pier Pipeline System	02-22-79	Bunker C	100 - 200 gal	Same as above.	Same as above.	Unknown	Yes (Ecology)	Released on Pier.	Spill contained on dock.
Pier Pipeline System	03-22-79	Black oil for fueling purposes, not waste oil.	2,000+	Same as above.	Release caused by failure of tee connection in 16" pier line belonging to Chempro. Accident occurred during off-loading of barge.	Visual observation.	Yes (EPA and Ecology)	Released on Pier.	Chempro clean-up crew and vacuum truck from outside contractor brought in. Approximately 2,000 gallons oil picked up by vacuum truck. Absorbent material spread around perimeter of spill area to prevent spreading. Records indicate that plans called for use of steam cleaner or high pressure cleaner unit to clean up asphalt surface.

Table 3 - Pier 91 Facility: Known Releases to the Environment

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UNIT	DATE OF RELEASE	TYPE OF PRODUCT OR WASTE RELEASED (a)	APPROX. QTY/ VOL. RELEASED	MEDIA	NATURE OF RELEASE	HOW RELEASE DETECTED	AGENCY NOTIFIED	MIGRATION PATH	ACTIONS TAKEN
Pier Pipeline System	09-25-85	Waste oil	1 1/2 - 2 gal	Water (and dock)	Leakage of valve pit during dock transfer.	Visual observation of oil sheen on water.	Yes (NRC, USCG)	Release dripped off dock and into water.	Cleaned up with boom, absorbent pads and sorbent material.
Pier Pipeline System	1986	Bunker fuel?	Unknown	Soil and asphalt	Pipeline ruptured due to traffic over paved area.	Unknown	Unknown	Released near truck loading/unloading area (west of tank farm wall near tanks 102- 104).	Released material pumped from excavation around pipeline rupture: Port of Seattle replaced damaged piping and repaired asphalt paving.
Pier - Berth F	08-29-78	Diesel	100+ gal	Water (Elliott Bay)	Flange not tightened, valve pit overflowed. Faulty valve allowed pressurization of line with blank flange on it.		Yes (USCG, Ecology, Metro)		Cleaned up with boom, absorbent pads, and sorbent material.

(a) All materials released were from waste oil reclamation operations.

Table 2 - Pier 91 Facility: Solid Waste Managent Units Closed During Chemical Processors, Inc. Operations

page: 1

UNIT NO. DESCRIPTION	PROCESS USE ACTIVE PERIODS	PRODUCT OR DANGEROUS WASTE CONTAINED	(GALLONS) CAPACITY	DIMENSIONS	MATERIAL OF CONSTRUCTION	STRUCTURE TYPE	COMMENTS	KNOWN RELEASES
Tank 118	1926 - 1940s: Use unknown. 1940s - 1950s: Storage. 1950s - 1977: Storage. 1977 - July 1986: Inactive.	Unknown. Lube oil. Possibly contained corrosives. N/A	15,500	24'H x approx. 10'D	Carbon Steel	Aboveground tank	Decontaminated, certified and scrapped July 1986.	None
Wastewater Treatment Tanks (2)	1979 - 1982: Wastewater treatment.	Wastewater with low chrome phenol concentrations, and emulsified wastewater.	Two tanks each 6,000 to 8,000	Approx. 4'H x 18'D each	Presumed steel and plastic frame with appx. 20 ml vinyl liner.	Aboveground tanks, open-top	Contents received from tanker trucks, and sent to other tanks on site after treatment. Dismantled and removed from site sometime prior to 1983. Cut up, drummed, and sent to an approved offsite disposal facility at that time.	None
Coolant Treatment Tank	Mid 1980 - Early 1981: Water in tank heated with steam coils; drums of asphalt/tar placed on rack in water to liquefy contents prior to transfer to other tanks. Early 1981 - March 1988: treatment and deemulsification of coolant oil. Occasionally used for phenol treatment.	Drums of asphalt tar. Coolants	4,500	30'L x 6' to 8'W x 4'H	Steel	Aboveground tank: used, rectangular, open top	Located outside south warehouse wall 1980- 1984. Relocated approx. 15' southwest outside tank system wall in 1984 and used at this location until 1988. Decontaminated, certified, and scrapped March 1988.	None

Table 2 - Pier 91 Facility: Solid Waste Managent Units Closed During Chemical Processors, Inc. Operations

page: 2

UNIT NO. DESCRIPTION	PROCESS USE ACTIVE PERIODS	PRODUCT OR DANGEROUS WASTE CONTAINED	(GALLONS) CAPACITY	DIMENSIONS	MATERIAL OF CONSTRUCTION	STRUCTURE TYPE	COMMENTS	KNOWN RELEASES
Treated Wastewater Tank	1984 - March 1988: Flocculation and gravity separation of precipitated water from tanks. Water was returned to another tank after treatment.	Wastewater requiring clarification.	Approx. 4,800	30'L x 6' to 8'W x 3.5'H	Same as above	Same as above	Same as above.	None